

# CURRENT SCIENCE

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## EDITORIAL

### A profusion of academies

A senior scientist recently asked me a question – ‘Why are there three Academies of Science in India?’. The question was probably rhetorical, but it dawned on me that I did not know the answer; the reasons were presumably buried in the forgotten past of Indian science. The origins of these Academies were highlighted some years ago in this journal (*Curr. Sci.*, 1994, **67**, 633–676) by S. Ramaseshan. Re-reading these pages left me somewhat bemused. Chronologically, the first Academy to be registered with a ‘national name’ was the Indian Academy of Sciences (Bangalore) on 27 April 1934. The Academy of Sciences of the United Provinces of Agra and Oudh (registered on 4 December 1930), changed its name to the National Academy of Sciences (Allahabad) on 5 December 1936. Sandwiched between these events the National Institute of Sciences held its inaugural meeting at Calcutta on 7 January 1935; another name change transformed it into the Indian National Science Academy (Delhi). The events of 1934–35 were undoubtedly a consequence of the C. V. Raman–Meghnad Saha equations, which dictated that two separate entities be born to accommodate these larger than life personalities. While Raman presided over the Bangalore Academy for the rest of his life, Saha presided over the Allahabad Academy as its founder president and over the National Institute of Sciences as its first Indian president in 1937–38.

In subsequent years other Academies have sprung up to meet perceived needs in various fields like engineering, medical sciences, agriculture and in even more specialized disciplines. An important feature of Academies is their need to be exclusive with a fellowship that is elected by existing members. This is the model followed the world over. Exclusivity, automatically implies that election to the fellowship reflects a level of peer recognition, that presumably follows when a scientist reaches a certain desirable level of scientific accomplishment. The reality, of course, is otherwise. Elections (all kinds) invariably become political affairs with the competing (and often contradictory) interests of many subject groups having to be reconciled. After all, there must be a broad representation of disciplines in a science

Academy; the only way for the Councils to achieve this is to impose a subtle ‘reservation system’ that ensures a moderate level of disciplinary parity. An inevitable consequence is that new Academies spring up to cater exclusively to disciplines, which appear underrepresented in the original bodies. This proliferation of Academies would be of little consequence if they were self-sustaining bodies with different sets of members, operating primarily to promote science in their surroundings. Unfortunately, the science Academies in India need substantial government grants to sustain their activities. It is therefore inevitable that the issue of relevance of these activities to the promotion of science and its beneficial applications, must be addressed. The most important activity of the Academies (unfortunately) appears to be election of new members and the conduct of annual (and biannual) meetings and the arrangement and support of symposia. The preoccupation with elections is not an Indian phenomenon alone. Richard Feynmann is reported to have resigned from the U.S. National Academy of Sciences because he felt that the organization did little else (an overstatement no doubt) than elect new fellows.

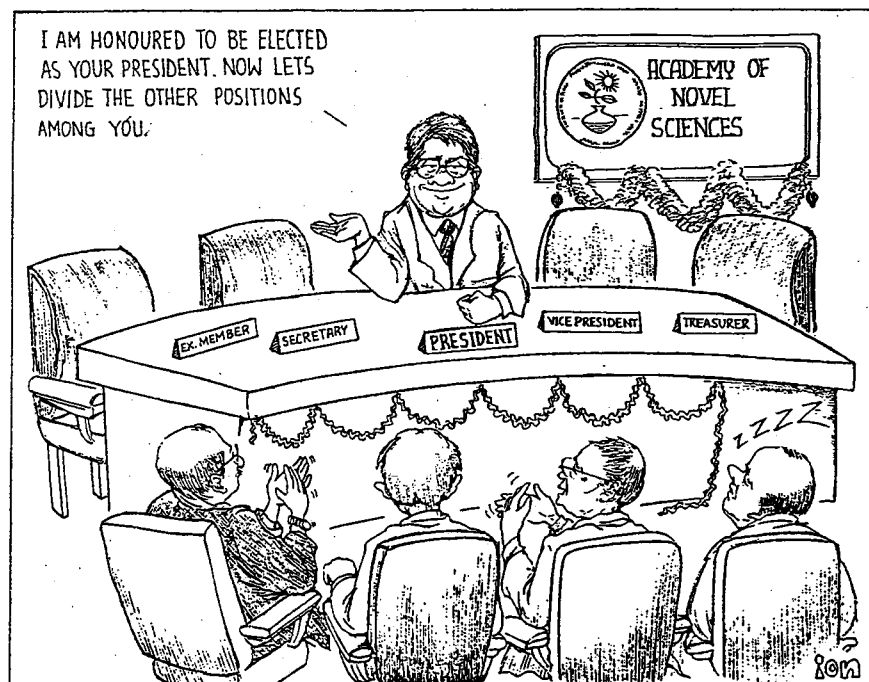
To an outsider it would seem that Academies of science must have some role to play in the manner in which Government decides science and technology policy. Academies, whose fellowships are presumably a storehouse of scientific knowledge, should, in principle, be best suited to an advisory role. Indeed in the U.S. the National Academy of Sciences and its sister bodies, the National Academy of Engineering and the Institute of Medicine (together constituting the National Research Council), serve as an important advisory arm of government, broadly representing the scientific community. Two of our Academies, the National Academy of Sciences (Allahabad) and the Indian Academy of Sciences (Bangalore) largely confine their activities to arranging scientific meetings and producing journals. The latter, in recent years, has also introduced new initiatives for promotion of science, by starting the journal *Resonance* and by providing opportunities for students and teachers

to spend short periods in research laboratories. The truly 'official' body is the Indian National Science Academy (INSA), located in Delhi, 'with its overwhelming air of officialdom' and surrounded by the almost suffocating air of one of the capital's busiest traffic intersections. INSA represents this country in all the world's scientific councils, sends delegations abroad, signs memoranda of understanding for international exchange programmes, distributes awards and indeed acts as an extended arm of government. INSA does not, however, have any apparent official standing as an advisory body of the government. Thus, on important issues which concern scientists and the community at large, like atomic power (in all its forms), genetically modified crops, hazard assessment related to earthquakes and floods, the declining quality of science education, funding of science and a host of others, there is no reasoned and largely acceptable view. Indeed, debate and controversy are usually avoided in the

Academies, making them sterile (and elitist) clubs, which serve little or no useful role in the context of the larger scientific community in India.

Why then do we have so many Academies? Even if they cannot merge (see S. Ramaseshan, *Curr. Sci.*, 1994, 67, 633-636 for an account of an attempt at unification in 1947), there must be efforts to act coherently and avoid the impression that the multiplicity of Academies reflects a fragmented and poorly organized structure of science in this country. Eschewing overlapping activities and reducing the number of meetings may be a good beginning. Academies of science must also collectively learn to lobby for greater support for scientific research, work towards enhancing the public perception of science and contribute effectively towards enhancing the quality of science in India.

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